APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/990,188	11/21/2001	William Tunstall-Pedoe	GNUSP001	1670

22434	7590	01/05/2005	EXAMINER

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EXAMINER
AL HASHEMI, SANA A

ART UNIT	PAPER NUMBER
2161	

DATE MAILED: 01/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

	Office Action Summary	Application N .	Applicant(s)
		09/990,188	TUNSTALL-PEDOE, WILLIAM
		Examiner	Art Unit	
		Sana Al-Hashemi	2161	

-- The MAILING DATE of this communication appears on the cover sheet with the c rresp ndence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *12 July 2004*.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-42* is/are pending in the application.

   4a) Of the above claim(s) *43-86* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-42* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

   Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

   Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

   a)☐ All   b)☐ Some * c)☐ None of:

   1.☐ Certified copies of the priority documents have been received.

   2.☐ Certified copies of the priority documents have been received in Application No. _____.

   3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
   application from the International Bureau (PCT Rule 17.2(a)).

   * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

1.   **Claim Status: 1-42 are allowed.**

Claim Rejections - 35 USC § 112

2.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly
> claiming the subject matter which the applicant regards as his invention.

3.   Claims 1, 21, and 39 recites the limitation "second knowledge" . There is

insufficient antecedent basis for this limitation in the claims. It's unclear where the

second knowledge is located, since there is no second knowledge base to infer the second

knowledge and it's unclear if the second knowledge is coming from the first knowledge

base, clarification is required.

        1- the relationship between pairs of object in the said first knowledge, or in the

first and second knowledge.

        2-where the first and second knowledge bases reside on the first or second or

separate computer.

Claim Rejections - 35 USC § 102

4.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5.   Claims 1, 2, 4-17, 21-35, and 39-42 are rejected under 35 U.S.C. 102(e) as being anticipated by Paik et al (US Patent No. 6,263,335).

Regarding Claim 1, 21, and 39,Paik discloses at least one computer-readable medium having computer program instructions embodied therein for interacting with at least one knowledge base, the at least one knowledge base having data stored therein representing first knowledge about a plurality of objects using a plurality of relationships between pairs of the objects, the computer program instructions comprising (see column 5, lines 3-40, Paik):

first computer program instructions operable to interact with the at least one knowledge base and, in response to a query having a predetermined format, infer second knowledge not represented in the at least one knowledge base from the first knowledge(see column 6, lines 37-43, Paik); and

second computer program instructions operable to respond to the query using at least one of the first knowledge and the second knowledge (see column 6, lines 46-51, Paik).

Regarding Claims 2, 22, and 40, Paik discloses at least one computer-readable medium wherein the first computer program instructions are operable to infer the second knowledge with reference to the relationships (see column 7, lines 4-15, Paik).

Regarding Claim 4, Paik discloses at least one computer-readable medium wherein at least a portion of the first and second computer program instructions are part of a server-side application (see column 6, lines 16-25, Paik).

Regarding Claims 5, and 23, Paik discloses at least one computer-readable medium wherein the computer program instructions further comprise third computer program instructions operable to generate the query (see column 9, lines 5-9, Paik).

Regarding Claims 6, and 24, Paik discloses at least one computer-readable medium wherein the third computer program instructions are operable to generate the query in response to query data representing a natural language question (see Fig. 6, Paik).

Regarding Claim 7, and 25, Paik discloses at least one computer-readable medium wherein the natural

language question is entered as a text string into a URL window in a browser environment, the third computer program instructions further being operable to determine whether the text string is a URL or the query data (see Fig. 7, column 22, lines 14-25, Paik).

Regarding Claim 8, and 26, Paik discloses at least one computer-readable medium wherein the third computer program instructions are operable to translate a natural language question into the query by generating at least one sub-string from a string of text corresponding to the natural language question, and selecting at least one of a plurality of query template components corresponding to the at least one sub-string to generate the query (see column 10, lines 35-57, Paik).

Regarding Claim 9, and 27, Paik discloses at least one computer-readable medium wherein the third computer program instructions are further operable to substitute the selected query template components into variables associated with a query generator execution of which generates the query (see column 10, lines 58-67, Paik).

Regarding Claims 10, and 28, Paik discloses at least one computer-readable medium further comprising:

fourth computer program instructions operable to generate a query template including the plurality of query template components by designating a plurality of predefined text sub strings and a plurality of variables to which the predefined text sub-strings correspond, and by defining a query generator with respect to the variables, the query generator being operable to generate the query from selected ones of the predefined text sub-strings being substituted for the corresponding variables (see column 10, lines 5-31, Paik).

Regarding Claims 11, and 29, Paik discloses at least one computer-readable medium wherein the third computer program instructions are further operable to generate a plurality of query candidates including the query (see column 24, lines 57-63, Paik).

Regarding Claims 12, and 30, Paik discloses at least one computer-readable medium wherein the third computer program instructions are further operable to reject selected ones of the plurality of query candidates with reference to the knowledge base (see column 5, lines 3-13, Paik).

Regarding Claims 13, and 31, Paik discloses at least one computer-readable medium wherein the third computer program instructions are further operable to present the plurality of query candidates for selection of the query (see column 6, lines 1-6, Paik).

Regarding Claims 14, 15, 32, and 33, Paik discloses at least one computer-readable medium wherein the computer program instructions further comprise third computer program instructions operable to generate a natural language response to the query with reference to selected ones of the plurality of objects (see Fig. 7, Paik).

Regarding Claims 16, and 34, Paik discloses at least one computer-readable medium wherein the translation objects comprise common translation objects and unique translation objects, the common translation objects relating an associated one of the selected objects with a common translation for the associated selected object, and the unique translation objects relating an associated one of the selected objects with a unique translation for the associated object (see column 12, lines 38-52, Paik).

Regarding Claims 17, and 35, Paik discloses at least one computer-readable medium wherein the first computer program instructions are operable to implement a plurality of inference generators each of which is operable to generate facts not represented in the knowledge base with reference to at least one of the plurality of objects and at least one potential fact associated with the inference generator (see column 12, lines 53-61, Paik).

Regarding Claims 41, and 42, Paik discloses a system wherein the at least one memory and the at least one central processing unit are connected via a local area network (see column 7, lines 61-64, Paik).

Claim Rejections - 35 USC § 103

6.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7.   Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Paik et al (US Patent No. 6,263,335) in view of Ahmed et al. (US Patent No. 5,809,493).

Regarding Claim 3, Paik discloses all the limitation subject matter as addressed in the rejection above except the plug-in application for use with the client browser application. However, Ahmed discloses the plug-in application (see column 5, lines 57-65, Ahmed). It would have been obvious to one of ordinary skill in the art at the time of the invention to use the plug-in method with the motivation of allowing the system to receive any and more type of database configuration with less user interaction, which in other words improves the database flexibility in receiving new and/or improved updates.

Allowable Subject Matter

8.   Claims 18-20 and 36-38 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: the prior art of record fails to teach, teach or render obvious the claimed feature, i.e. the plurality of inference generators are operable to generate facts with reference to the associated objects, the relationships corresponding to the associated objects, and the associated potential facts, and without reference to any processes external to the inference generator, in conjunction with the other claim provisions.

Response to Amendment

Applicant's arguments filed 7/12/04 have been fully considered but they are not persuasive.

Applicant argues "Paik does not describe a system which is operable in response to a query having a predetermined format to infer second knowledge not represented in the at least one knowledge base from first knowledge' which is represented in the at least one knowledge base as recited in claim 1. Merely because the information extraction techniques described in Paik go beyond document boundaries it does not follow that inferences are being made from the information stored in first knowledge base in response to a query to generate knowledge not previously represented."

Examiner disagrees. Since it's unclear where the second knowledge resides Examiner believes Paik still reads on the limitation specifically be referring to Fig. 2, 100, 102, and 107, and column 9, lines 53-60, where Paik clearly teaches the use of knowledge base.

Applicant argues that "Paik's processing is not with reference to information represented in the knowledge base, but with reference to information which is yet to be represented. Secondly, Paik's processing is not done in response to queries, but as part of the process of summarizing and including documents in the database which can subsequently be returned in response to a query."

Examiner disagrees. Referring to column 8, lines 42-51, Paik clearly discloses the search by the concept where the system reply to the user query with the most relevant to the user query.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of

time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the

advisory action. In no event, however, will the statutory period for reply expire later than

SIX MONTHS from the mailing date of this final action.
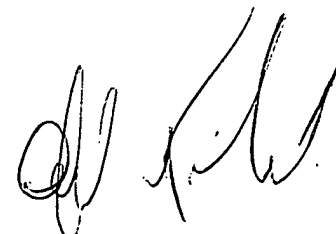
Other Prior Art Made of Record

1- Paik et al (US Patent No. 6,263,335) discloses an information extraction system and

method using concept-relation-concept (CRC) triples.

2- Ahmed et al. (US Patent No. 5,809,493) discloses a Knowledge processing system

employing confidence levels.

3- Busey et al. (US Patent No. 6,377,944) discloses a web response unit including

computer network based communication.

4- Preston, Keith Robert (US Patent No. 6,46,081) discloses a data input and retrieval

apparatus.

Points of Contact

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sana Al-Hashemi whose telephone number is (571) 272-0413. The examiner can normally be reached on Monday - Friday from 8:00 AM to 4:30 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Safet Metjahic, can be reached on (571) 272-0423. Any response to this office action should be mailed to: The Commissioner of Patents and Trademarks, Washington, D.C. 20231. Or telefax at phone number (703) 872-9306. For formal or draft communications, please label "PROSPOSED" or "DRAFT". Hand-delivered response should be brought to Crystal Park II, 2121 Crystal Drive, 6th Floor Receptionist, Arlington, Virginia. 22202.

Sana Al-Hashemi
Patent Examiner
Technology Center 2100
December 21, 2004

ALFORD KINDRED
PRIMARY EXAMINER